



Fact Sheet

California Environmental Protection Agency

 **Air Resources Board**

December 2001

REDUCING YOUR EXPOSURE TO PARTICULATE POLLUTANTS

Particulate pollutants are found both indoors and outdoors. They include very small (often invisible) particles and aerosols from combustion sources such as motor vehicle exhaust, industrial processes, cigarette smoke, cooking, and woodburning activities; biological components such as pollen and mold spores, and dust mite and cockroach allergens; fine fibers such as asbestos; and soil particles.

Depending on their size and composition, particulate pollutants deposit in different areas of the lungs and mucous membranes and can cause a variety of harmful health effects. These effects include cough, nasal irritation, lung infection, allergy symptoms, asthma, chronic lung conditions, cancer, and premature death.

The Air Resources Board has an active program to reduce emissions from sources such as motor vehicles and industrial plants. There are also many actions you can take to reduce your and your family's exposures to particulate pollutants. You can:

- ◆ **Spend less time traveling in motor vehicles**, especially on busy roadways or as a single occupant. Use alternative transportation or carpool. This will help reduce the total particles on the highways and in your neighborhood.
 - Keep your car properly tuned and maintained, and avoid long warm-ups. Never warm up a car in a closed garage.
 - Avoid following smoking vehicles; their exhaust plumes contain high levels of particles and toxic chemicals. Report them to ARB's smoking vehicle hotline at 1-800-END-SMOG so that they will be notified that they have a problem.
 - Consider purchasing an electric or hybrid (gasoline-electric) vehicle when you buy your next car. For more information, see <http://www.arb.ca.gov> and click on "Cleaner Cars Buyers Guide".
- ◆ **Reduce smoke and combustion products in your home.**
 - Do not allow cigarette or cigar smoking in your home.
 - Burning candles and incense indoors can greatly elevate indoor particle levels as well. They should be used sparingly, and only with good outdoor air ventilation.
 - Don't burn wood when outdoor pollution is high. If you do burn wood, use "seasoned" (dry) wood, and assure that your fireplace or woodstove drafts properly. Request ARB's *Woodburning Handbook* at the phone number below for more woodburning tips.

- Have gas heaters and stoves checked annually by a professional to assure that they are functioning properly and vented to the outdoors. Use exhaust fans that vent to the outdoors when cooking.
- Never use hibachis, charcoal grills, or unvented space heaters indoors.
- Follow the additional recommendations in ARB's indoor air quality guideline entitled *Combustion Pollutants in Your Home*, at <http://www.arb.ca.gov/research/indoor/indoor.htm>

◆ **Reduce the entry of outdoor particles into your home.**

- Close windows and doors when outdoor pollution levels are high.
- Use doormats at entryways and remove shoes before entering the home to reduce track-in of soil particles by people and pets. Soil particles often contain toxic components such as lead and pesticide residues; they can become re-suspended in the indoor air and inhaled, and be ingested by small children who play on the floor.
- Use a medium- or high-efficiency filter in your central heating system to remove airborne particles that infiltrate into your home. See ARB's *Residential Air Cleaners Fact Sheet* at <http://www.arb.ca.gov/research/indoor/indoor.htm> for more on filters.
- Use a high-efficiency vacuum cleaner or a whole-house vacuum cleaner.

◆ **Prevent mold and dust mite problems.**

- Promptly repair roof leaks and plumbing problems.
- Assure that ventilation is adequate during activities that generate moisture indoors, such as during showering, cooking, and dishwashing. Moisture encourages mold growth, and dust mites thrive in humid indoor environments. (Dust mites are microscopic mites commonly found in house dust that can trigger allergy symptoms and asthma attacks in sensitive individuals.)
- Remove mold properly. See *Mold in My Home: What Do I Do?* at <http://www.cal-iaq.org>.

◆ **For more information, visit our website at www.arb.ca.gov and click on "What You Can Do" in the left-hand column, or call our Public Information Office at 916-322-2990.**

If you are a person with disability and desire to obtain this document in an alternative format, please contact the Air Resources Board Coordinator at (916) 323-4916. Persons with hearing or speech impairments can contact us by using our Telephone Device for the Deaf (TDD) at (916) 324-9531, or (800) 700-8326 for TDD calls from outside the Sacramento area.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.